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Tatsuo Kamei

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EXAMINER

MILIA, MARK R

ART UNIT

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2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/537,797 | Applicant(s) KAMEI, TATSUO | |
| | Examiner Mark R. Milia | Art Unit 2625 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 20-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 20-24 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium.

Claims 20-24, while defining a program, does not define a "computer-readable medium" and is thus non-statutory for that reasons. A program can range from paper

Art Unit: 2625

on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on “computer-readable medium” in order to make the claim statutory.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 7-9, 11, 13-15, 18-22, and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,293,714 to Noda.

Regarding claim 1, Noda discloses a print control apparatus for controlling a printer engine that prints a content based on a file indicating the content to be printed, comprising: a storage unit that has an area for storing the file (see Fig. 1 **2003** and column 9 lines 47-50, reference states that the processes of the system of the host computer and the printer can be applied to single equipment), a writing unit operable to write the file in said storage unit (see Fig. 1 **2001**), and a file management unit operable to hierarchize files to be written by said writing unit in said storage unit, operable to manage files in a hierarchical form, and operable to search the file based on a resulting hierarchy (see Fig. 12, column 2 lines 7-12, and column 5 lines 15-50, reference shows that print data is divided based on the size of the storage area **2003** and the size of the

Art Unit: 2625

data to be printed and that the print jobs are sequentially stored and then are searched to obtain the data, and respective divisions of the job, to ready the data for printing).

Regarding claims 13 and 20, Noda discloses a print control method and program for controlling a printer engine that prints a content based on a file indicating the content to be printed, comprising: a hierarchization step of hierarchizing files, one of which being the file, and writing files in a memory and a search step of searching the file based on a resulting hierarchy (see Figs. 1 **2003** and 12, column 2 lines 7-12, and column 5 lines 15-50, reference shows that print data is divided based on the size of the storage area **2003** and the size of the data to be printed and that the print jobs are sequentially stored and then are searched to obtain the data, and respective divisions of the job, to ready the data for printing).

Regarding claim 25, Noda discloses a printer comprising: a printer engine for printing a content based on a file indicating the content to be printed (see Fig. 1 **2004** and column 3 lines 53-54), and a print control apparatus for controlling the printer engine (see Fig. 1 **2001** and column 3 lines 48-50), wherein said print control apparatus includes: a storage unit that has an area for storing the file (see Fig. 1 **2003**), a writing unit operable to write the file in said storage unit (see Fig. 1 **2001** and column 9 lines 47-50, reference states that the processes of the system of the host computer and the printer can be applied to single equipment), and a file management unit operable to hierarchize files to be written in said storage unit by said writing unit and operable to manage the files in a hierarchical form, and operable to search the file based on a resulting hierarchy (see Fig. 12, column 2 lines 7-12, and column 5 lines 15-50,

Art Unit: 2625

reference shows that print data is divided based on the size of the storage area **2003** and the size of the data to be printed and that the print jobs are sequentially stored and then are searched to obtain the data, and respective divisions of the job, to ready the data for printing).

Regarding claims 2, 14, 21, and 26, Noda further discloses an obtainment unit operable to obtain print data indicating the content to be printed from outside said print control apparatus (see column 3 lines 36-37), and a division unit operable to divide the print data obtained by said obtainment unit into the files (see column 2 lines 3-12 and column 5 lines 15-36), wherein said writing unit is operable to write the files divided by said division unit in said storage unit (see column 6 lines 34-37 and column 9 lines 48-50, reference states that the processes of the system of the host computer and the printer can be applied to single equipment).

Regarding claims 3, 15, 22, and 27, Noda further discloses wherein said division unit is operable to divide the print data on a page-by-page basis and operable to generate a file including information equivalent to each page (see column 2 lines 7-9 and column 5 lines 15-19).

Regarding claims 7 and 18, Noda further discloses wherein said file management unit is operable to set an upper limit on the number of print data to be written in said storage unit as the files and operable to prohibit said writing unit from writing print data over the upper limit (see column 2 lines 3-12 and column 5 lines 6-14).

Regarding claim 8, Noda further discloses wherein said file management unit is operable to selectively use, depending on print data obtained by said obtainment unit, a

Art Unit: 2625

first management form for hierarchizing and managing the files, and a second management form for hierarchizing and managing the files in a way different from the first management form (see column 4 lines 55-65, reference shows that a size determination is made and based on the determination division of the print data is performed or not prior to sending the data to the storage area **2003**).

Regarding claim 9, Noda further discloses wherein said file management unit is operable to selectively use the first management form and the second management form depending on the number of files composing the print data obtained by said obtainment unit (see column 4 lines 55-65 and column 5 lines 2-19, reference shows that based on print data size division of the print data is carried out or not).

Regarding claims 11 and 19, Noda further discloses wherein said file management unit is operable to set, in said storage unit, a storage area in which files under a predetermined upper limit are written, and said file management unit is operable to newly set the storage area, and operable to cause said writing unit to write said files in the new storage area in the case where the number of files written in the storage area reaches the upper limit (see column 2 lines 3-12 and column 5 lines 6-14).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-6, 10, 12, 16-17, 23-24, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda as applied to claims 2, 9, 14, 21, and 26 above, and further in view of U.S. Patent No. 5,715,381 to Hamilton, as cited in the IDS dated 6/7/05.

Regarding claim 4, Noda does not disclose expressly wherein said division unit is operable to divide the print data on an area-by-area basis, the area being smaller than a page, and operable to generate a file including information equivalent to each page.

Hamilton discloses wherein said division unit is operable to divide the print data on an area-by-area basis, the area being smaller than a page, and operable to generate a file including information equivalent to each page (see Fig. 23 and column 12 line 62-column 13 line 48).

Regarding claims 5, 16, 23, and 28, Noda does not disclose expressly wherein said file management unit is operable to divide the files to be written in said storage unit into two layers in a hierarchy and operable to manage the files in a hierarchical form by setting one storage area for one print data in said storage unit and by causing said writing unit to write, in the storage area, the files generated from the print data.

Art Unit: 2625

Hamilton discloses wherein said file management unit is operable to divide the files to be written in said storage unit into two layers in a hierarchy and operable to manage the files in a hierarchical form by setting one storage area for one print data in said storage unit and by causing said writing unit to write, in the storage area, the files generated from the print data (see Fig. 26 and column 14 lines 18-32).

Regarding claims 6, 17, 24, and 29, Noda does not disclose expressly wherein said file management unit is operable to divide the files to be written in said storage unit into three layers in the hierarchy and operable to manage the files in a hierarchical form by setting one storage area for one print data in said storage unit and sub-storage areas in the storage area, and by causing said writing unit to write the files generated from the print data in the sub-storage areas in the storage area.

Hamilton discloses wherein said file management unit is operable to divide the files to be written in said storage unit into three layers in the hierarchy and operable to manage the files in a hierarchical form by setting one storage area for one print data in said storage unit and sub-storage areas in the storage area, and by causing said writing unit to write the files generated from the print data in the sub-storage areas in the storage area (see Figs. 23-25 and column 12 line 62-column 13 line 48).

Regarding claim 10, Noda does not disclose expressly wherein said file management unit is operable to selectively use the first management form for dividing the files into two layers in a hierarchy and the second management form for dividing the files into three layers in a hierarchy.

Art Unit: 2625

Hamilton discloses wherein said file management unit is operable to selectively use the first management form for dividing the files into two layers in a hierarchy and the second management form for dividing the files into three layers in a hierarchy (see Figs. 23-26, column 12 line 62-column 13 line 48, and column 14 lines 18-32).

Regarding claim 12, Noda does not disclose expressly wherein said file management unit is operable to divide the files to be written in said storage unit into two layers in the hierarchy and operable to manage the files in a hierarchical form by setting a storage area for each user in said storage unit and by causing said writing unit to write the file in the storage area of a user who generated the file.

Hamilton discloses wherein said file management unit is operable to divide the files to be written in said storage unit into two layers in the hierarchy and operable to manage the files in a hierarchical form by setting a storage area for each user in said storage unit and by causing said writing unit to write the file in the storage area of a user who generated the file (see Fig. 26 and column 14 lines 18-32).

Noda & Hamilton are combinable because they are from the same field of endeavor, managing multiple documents for subsequent output.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the dividing of files into layers for storage and manipulation, as described by Hamilton, with the system of Noda.

The suggestion/motivation for doing so would have been to provide a greater ability to divide the print data due to memory capacity restrictions of a storage area.

Art Unit: 2625

Therefore, it would have been obvious to combine Hamilton with Noda to obtain the invention as specified in claims 4-6, 10, 12, 16-17, 23-24, and 28-29.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. To further show the state of the art please refer to the attached Notice of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
Examiner
Art Unit 2625

/Mark R. Milia/
Examiner, Art Unit 2625

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